

indicated that, upon receipt of this written submission and reconsideration, if issues are outstanding, they would call Applicant's attorney.

The present invention is directed to and claims a n amusement and stress relief device formed of a flexible, resilient polymeric material having a center portion with a concave/convex shape, wherein the device has **two stable equilibrium positions** wherein a first equilibrium position comprises a first surface having a concave shape and a second surface having a convex shape and a second equilibrium position comprises the second surface having a concave shape and the first surface having a convex shape, whereby manual manipulation of the device inverts the first and second surfaces between the two stable equilibrium positions, as set forth in claim 1. In other words, the second stable equilibrium position is the reverse of the first stable equilibrium position. The device of the present invention requires manual manipulation to be moved from one stable equilibrium position to the other, no matter which stable equilibrium position it is in. That is not true for any of the cited prior art devices.

In the embodiment set forth in claim 8, the device has a domed peak formed in the center portion, the peak having a height h_p relative to a plane containing the peripheral portion, and the ratio of h_p to d is **not greater than** about $1/3$.

Claim 1 is finally rejected under 35 U.S.C. §102(b) over "Ballard" (sic). Bullard (Des 301,156) discloses an ornamental design for a round clicker. The examiner

asserts that "manual manipulation of the device inverts the first and second surfaces between two equilibrium positions." However, there is no teaching or suggestion that "manual manipulation of the device inverts the first and second surfaces between **two equilibrium** positions." Indeed, such prior art clickers have typically provided only **one equilibrium** condition for the clicker, i.e., the original and **only** equilibrium position. When the top surface is pressed inwardly, typically a noise is made, after which the surface **automatically** pops back into the original equilibrium position. Thus, such devices **fail to have two equilibrium positions**, much less two **stable** equilibrium positions, as claimed in the present application.

On the contrary, the device of the present invention, however, has two **stable** equilibrium positions. When the first surface is pressed inwardly the device **inverts** from a **first** equilibrium position *where the first surface is outward* to a **second** equilibrium position *where the first surface is inward*. The first equilibrium position has substantially the same shape as the second equilibrium position, as illustrated in FIG. 2 by the dashed line. To reestablish the original equilibrium position requires pressing inwardly on the second surface to reinvert the device from the second equilibrium position to its original equilibrium position. Because both positions are stable, it makes no difference in which position the device is, manual manipulation is required to invert it onto the second stable position.

Samples of the device of the present invention are enclosed herewith to aid the examiner. As can be seen, there is no difference between the sample device in the first

or the second equilibrium position. That is not true for the device of Bullard. In the Bullard device, when one exerts pressure on the surface to move it from its original equilibrium position, however, it will restore itself to the original equilibrium position as soon as the pressure is removed. In the device of the present invention the second equilibrium position is stable; the device will hold the second equilibrium position until changed by external force.

Thus, Bullard ***fails*** to teach or suggest a device

having **two stable equilibrium positions** wherein a first **stable** equilibrium position comprises a first surface having a concave shape and a second surface having a convex shape and a second **stable** equilibrium position comprises the second surface having a concave shape and the first surface having a convex shape,
whereby manual manipulation of the device inverts the first and second surfaces between the two stable equilibrium positions.

The term "equilibrium position" is contrary to a device having an applied pressure position that is unstable and returns automatically to a prior position when the pressure is removed.

Further, the term "stable" is defined as "not moving: stationary, stable" (*Webster's Seventh New Collegiate Dictionary* (1972), G. & C. Merriam Co., Publishers, Springfield, Massachusetts). The term "stable" is defined as "not changing or fluctuating: unvarying: fixed, steadfast." (Id.)

It is not seen how Bullard teaches or suggests a device having **two stable equilibrium positions** wherein a first equilibrium position comprises a first surface

having a concave shape and a second surface having a convex shape and a second equilibrium position comprises the second surface having a concave shape and the first surface having a convex shape

Thus, it is not seen how the present invention would have been made by one of ordinary skill in the art in view of Bullard.

Claim 1 also is rejected under 35 U.S.C. §102(b) over Davis (US 2,153,957). Davis describes a jumping toy consisting of a hemispherical body made of fairly stiff and hard rubber. Thus, Davis ***fails*** to teach or suggest a device having a center portion and a **substantially planar peripheral portion** surrounding the center portion, as claimed herein.

Further, Davis states (col. 1, lines 6-12) that"

[t]o operate the toy one simply turns it inside out and places it rim down on a flat surface. The toy will shortly start to return, at first slowly and then with increasing rapidity, to its undeformed shape. At a critical midway point the toy suddenly and completely snaps back into shape.

Thus, the jumping toy of Davis **automatically** returns to its undeformed shape. The deformed shape is not a **stable equilibrium** position but always has movement to return to the undeformed shape, even though the movement is slowly (and perhaps barely perceptively) at first.

Indeed, to accomplish the purpose of the jumping toy, Davis states "my toy is a more or less hemispherical body consisting of a wall of fairly stiff and hard **rubber**." That is important because, when the top surface is inverted, the elasticity of the rubber is required to restore the toy to its original shape. However, such elasticity is not desirable in the present invention. Instead, the device of the present invention is sufficiently resilient to deform without breaking and to invert its original stable equilibrium position to adopt a second stable equilibrium position, when outside forces are applied. However, unlike the jumping toy of Davis, outward forces are again necessary for the present device to reinvert to the first stable equilibrium position.

Thus, Davis also ***fails*** to teach or suggest a device

having **two stable equilibrium positions** wherein a first **stable** equilibrium position comprises a first surface having a concave shape and a second surface having a convex shape and a second **stable** equilibrium position comprises the second surface having a concave shape and the first surface having a convex shape,
whereby manual manipulation of the device inverts the first and second surfaces between the two stable equilibrium positions.

It is not seen how the present invention would have been made by one of ordinary skill in the art in view of Davis. Davis fails to teach or suggest a plastic device that will indefinitely hold either of two stable equilibrium positions that are structurally mirror images of each other.

Claims 2-17 are rejected under 35 U.S.C. §103(a) over Davis. Davis is discussed in detail above. Claims 2-17 are patentable for at least the same reasons as discussed above. As aforesaid, Davis ***fails*** to teach or suggest a device having a

center portion and a **substantially planar peripheral portion** surrounding the center portion, as claimed herein. Davis also ***fails*** to teach or suggest a device

having **two stable equilibrium positions** wherein a first **stable** equilibrium position comprises a first surface having a concave shape and a second surface having a convex shape and a second **stable** equilibrium position comprises the second surface having a concave shape and the first surface having a convex shape,
whereby manual manipulation of the device inverts the first and second surfaces between the two stable equilibrium positions.

In addition, Davis ***fails*** to teach or suggest a device that is disk-shaped and has a diameter d in the range of about 0.75 inch to about 6 inches, as set forth in claim 2.

Davis ***fails*** to teach or suggest a device having a peripheral portion comprising a lip having a width w wherein the ratio of w to d is not greater than about $\frac{1}{4}$, as set forth in claim 3.

Davis ***fails*** to teach or suggest a device wherein the ratio of w to d is in the range of about $\frac{1}{30}$ to about $\frac{1}{5}$, as set forth in claim 4.

Davis ***fails*** to teach or suggest a device wherein the ratio of t to d is in the range of about $\frac{1}{80}$ to about $\frac{1}{20}$, as set forth in claim 6.

Davis ***fails*** to teach or suggest a device wherein the thickness t of the center portion is tapered, such that a thickness t_1 near the peripheral portion is greater than a thickness t_c near the center, as set forth in claim 7.

Davis ***fails*** to teach or suggest a device wherein a domed peak is formed in the center portion the peak having a height h_p relative to a plane containing the peripheral portion, and the ratio of h_p to d is not greater than about $1/3$, as set forth in claim 8.

Davis also ***fails*** to teach or suggest a device (1) wherein at least one of the first and second surfaces are textured; (2) wherein the texture is provided by ridges formed on the surface; (3) wherein the texture is provided by dimples formed on the surface; (4) wherein at least one surface comprises an illustration; (5) wherein the material comprises a scent that is emitted from the device upon manual manipulation; or (6) wherein the material comprises a composition that changes the color of the device upon changes in temperature or changes in other environmental conditions. the assertion that these claimed recitations are merely design choices is not supported. Nowhere is there any suggestion that the device of Bullard or Davis should be so constructed.

In view of the amendment, the interview and the discussion above, it is respectfully submitted that the present application is in condition for allowance. An early reconsideration and notice of allowance are earnestly solicited.

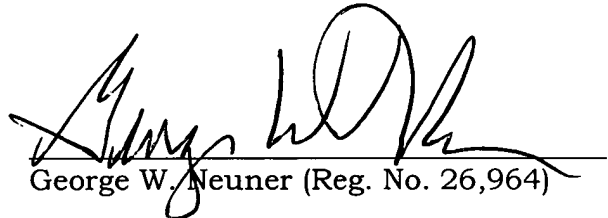
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Ser. No. 09/417,428
Page 10 of 10

If, after reconsideration, the examiner considers that issues still remain, it is requested that the examiner call Applicant's attorney to attempt to resolve such issues.

Respectfully submitted,

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